SECTION 05400

COLD FORMED METAL FRAMING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. [Load bearing cold formed steel stud exterior wall, and associated framing.]

B. [Formed steel joist framing, purlins and bridging.]

1.2 SUBMITTALS

A. Submit the following in accordance with the requirements of Sections 01300:

1. Catalog data on standard framing members describing materials, finish and including structural properties tables.

2. Installation instructions indicating special procedures, perimeter conditions requiring special attention.

1.3 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the Products specified in this section.

B. Installer: Company specializing in performing the work of this section having installed a minimum of 10 projects of similar scope.

PART 2 PRODUCTS

2.1 FRAMING MATERIALS

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Structural engineer will determine sizes of members.

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A. Studs: ASTM C955, formed to channel shape, punched web, [18 gage thick and 6 inch nominal depth.]

B. Joists [and Purlins]: ASTM A525 Grade sheet steel, formed to channel shape, unpunched web; [16 gage thick and 8 inches deep], [purlins 20 gage thick and 6 inches deep.]

C. Track: Formed steel; channel shaped; same width as studs, tight fit; gage to match stud or joist thickness, solid web.

2.2 ACCESSORIES

A. Bracing, Furring, Bridging: As indicated on the Drawings.

B. Shop and Touch-Up Primer: SSPC - Paint 15, Type 1, red oxide.

2.3 FASTENING

A. Welding: In conformance with AWS D1.1 and AWS D1.3.

2.4 FINISHES

A. Studs: Prime paint. [Galvanized]

B. Tracks and Headers: Prime paint. [Galvanized]

C. Joists [and Purlins]: Prime paint.

D. Bracing, Furring, Bridging: Same finish as framing members.

E. Plates, Gussets, Clips: Same finish as framing members.

F. Backpaint concealed primed metal surfaces to be in contact with concrete with protective backing paint to a minimum dry film thickness of 15 mils.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that building framing components are ready to receive work.

3.2 ERECTION OF STUDDING

A. Install components in accordance with both manufacturer's instructions and AISI, "The Design and Fabrications of Cold-Formed Steel Structures."

B. Align floor and ceiling tracks; locate to wall and partition layout. Secure in place as shown on Drawings.

C. Place studs at 16 inches not more than 2 inches from abutting walls and at each side of openings.

D. Construct corners using minimum three studs. Double stud wall openings, door and window jambs.

E. Erect load bearing studs one piece full length. Splicing of studs is not permitted.

F. Erect load bearing studs, brace, and reinforce to develop full strength, to achieve design requirements.

G. Coordinate placement of insulation in multiple stud spaces made inaccessible after erection.

H. Install intermediate studs above and below openings to align with wall stud spacing.

I. Touch-up field welds and damaged primed surfaces with primer.

3.3 ERECTION OF JOISTS [PURLINS]

A. Install framing components in accordance with manufacturer's instructions.

B. Make provisions for erection stresses. Provide temporary alignment and bracing.

C. Place joists 16 inches on center, to match studs. Connect joists to supports using welding method. [Place purlins 48 inches on center, maximum. Connect purlins to each joist using welding method.]

D. Locate joist end bearing directly over load bearing studs or provide load distributing member at top of stud track.

E. Provide web stiffeners at supports or provide continuous bearing track.

F. Touch-up field welds and damaged primed surfaces with primer.

3.4 ERECTION TOLERANCES

A. Conform to a variation from true position of 1/4 inch or less.

B. Conform to a variation of any member from plane of 1/4 inch in 10 feet or less, 1/2 inch maximum.

END OF SECTION